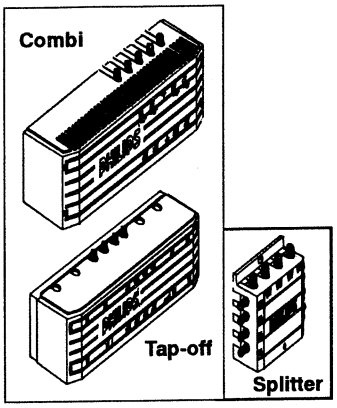
Collective Switch Line

Service
Service
Service



PAS 7001/021 30W Combi-Supply
PAS 7001/031 60W Combi-Supply
PAS 7001/051 Splitter 2D
PAS 7001/061 11dB Terminal
PAS 7001/071 15dB Tap-off
PAS 7001/081 20dB Tap-off

Service Manual

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PHILIPS

PCS 65 593

Warnings

a. A set to be repaired should always be connected to the mains via a suitable isolating transformer.
b. The approval of the sets from the reference authorities, like the safety regulations demand that the set be restored to its original condition and that the components identical to the original types be used.

Safety components are marked by the symbol ⚠

ESD

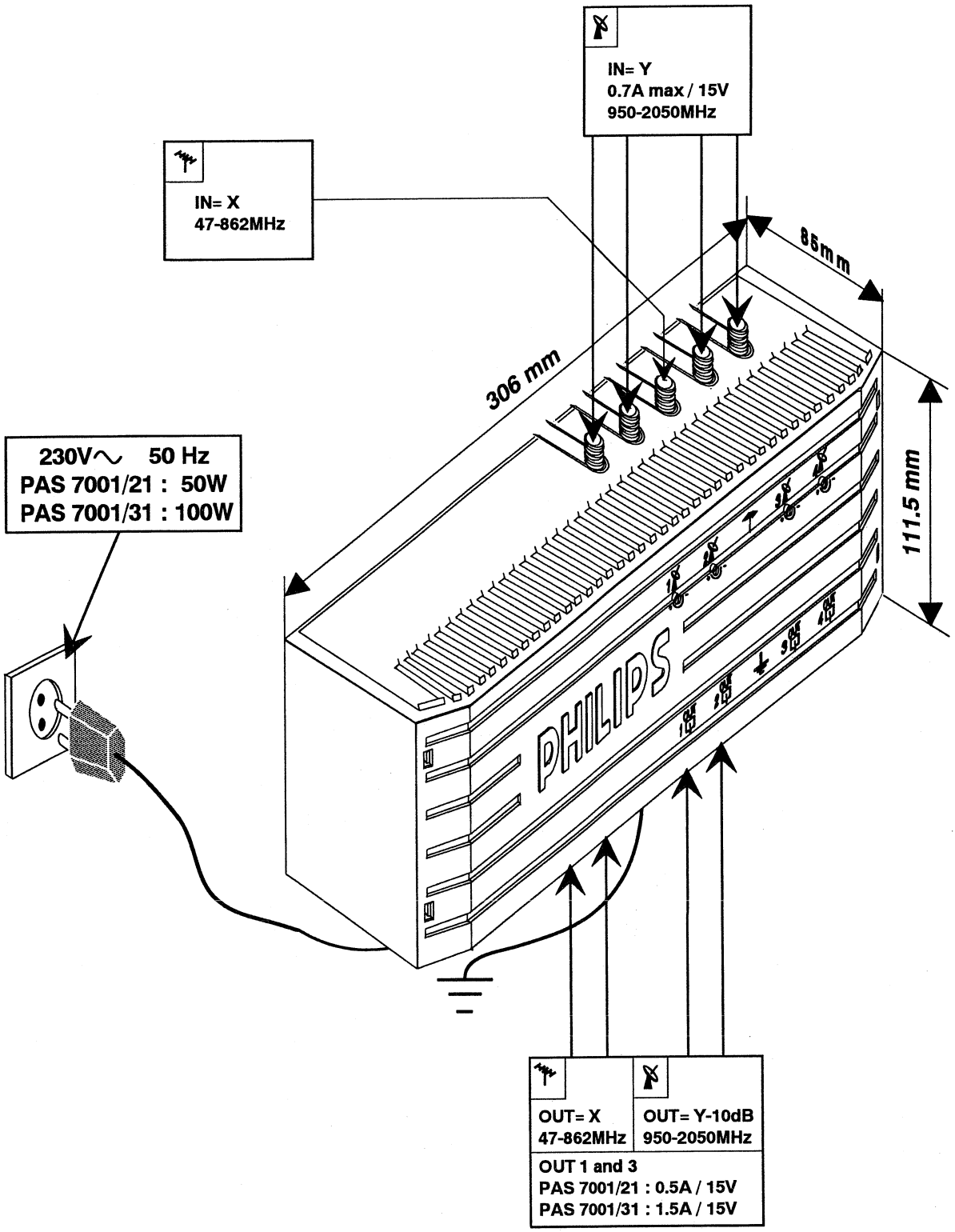
a. All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD).
Careless handling during repair can reduce life drastically.
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance.
Keep components and tools on the same potential.
b. Never replace any parts while the set is switched on.
c. Use plastic instead of metal alignment tools.
This in order to preclude short-circuit or to prevent a specific circuit from being rendered unstable.

Remarks

The direct voltages and waveforms should be measured relative to the nearest earthing point on the printed circuit board.

Technical characteristics

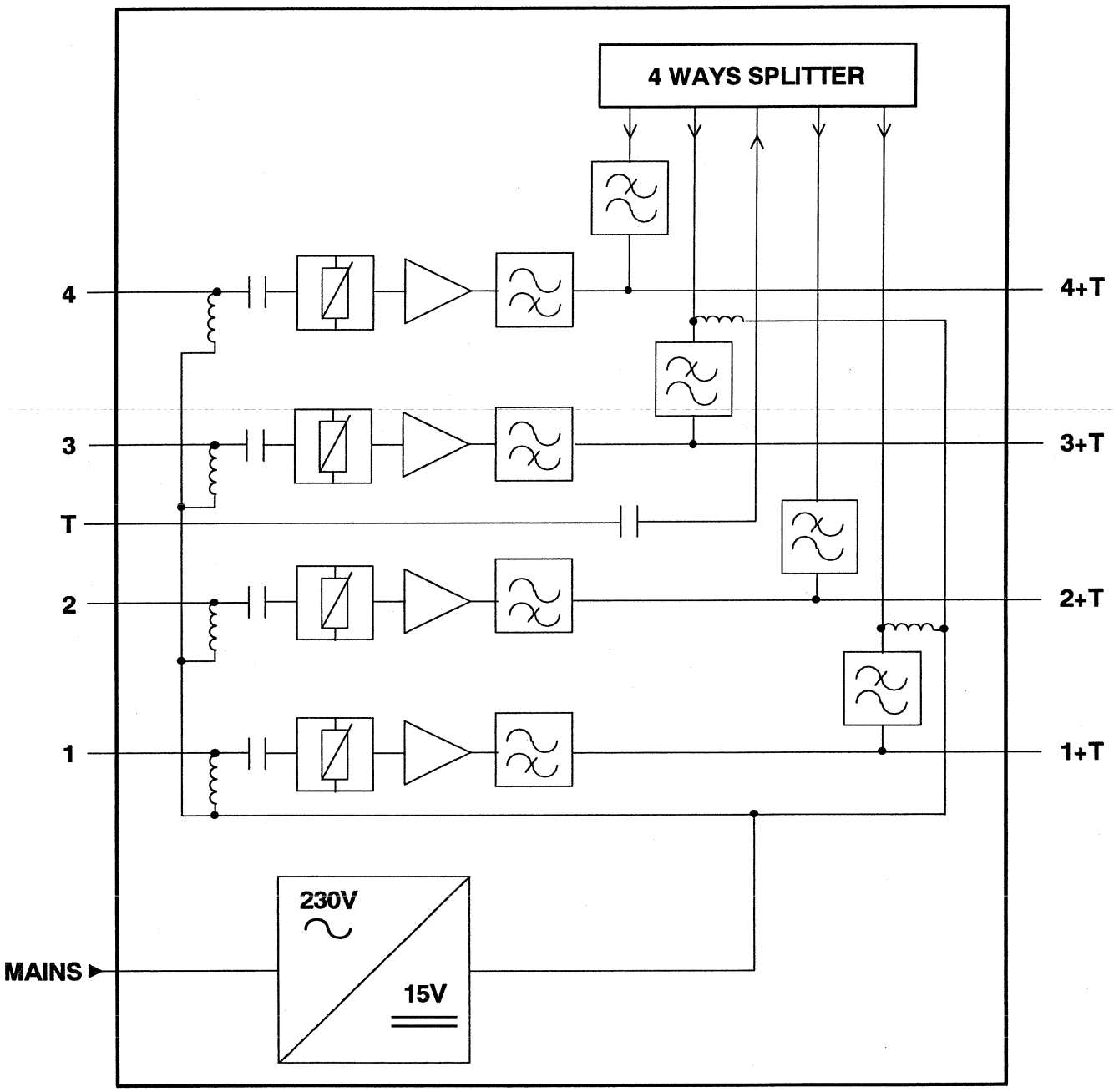
PAS 7001/21
PAS 7001/31



Weigh : PAS 7001/021 : 3,0kg
: PAS 7001/031 : 3,5kg

Block diagram

PAS 7001/021
PAS 7001/031



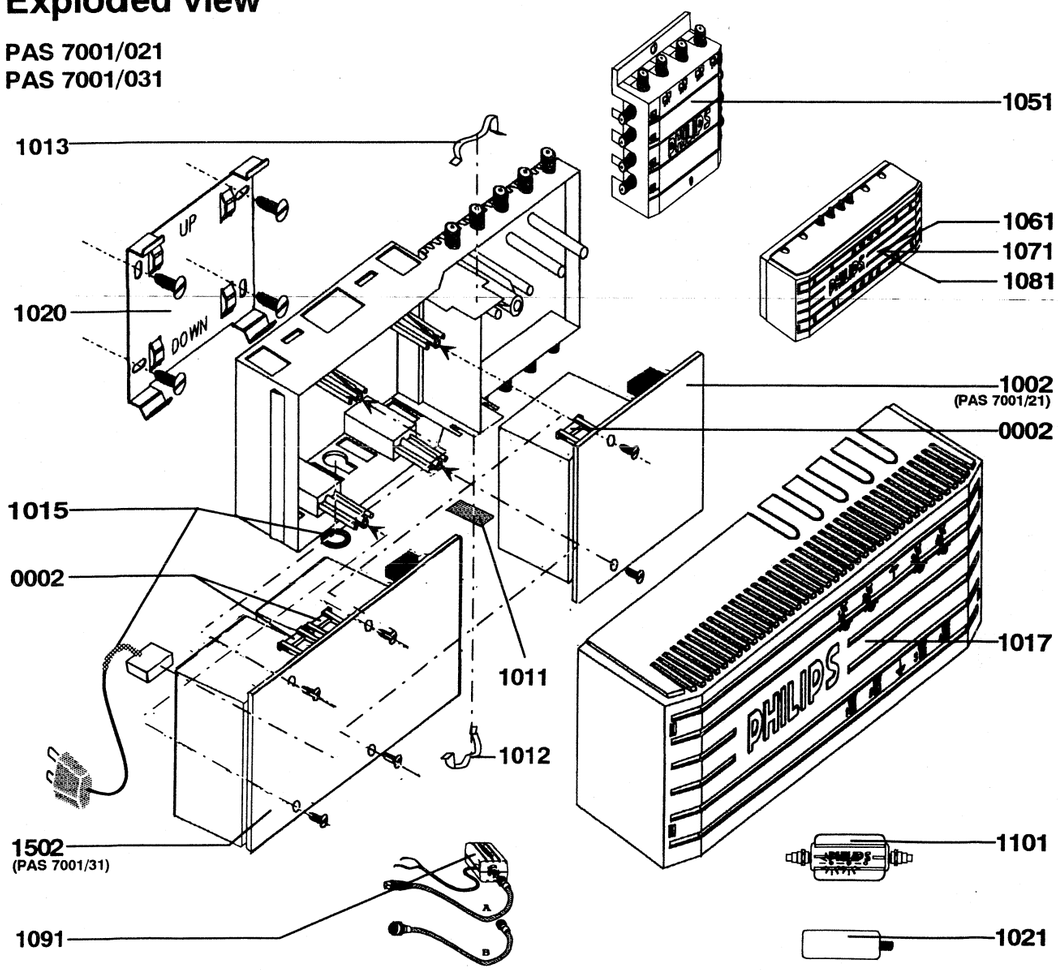
Mechanical Parts

PAS 7001/021
PAS 7001/031

Item	Description		Service code
	DFU Collective Swich Line		4822 736 53653
⚠0002	FUSE T315mA		4822 070 33151
1002	POWER SUPPLY MODULE 1		4822 212 31131
1011	INSULATOR		4822 255 41297
1012	SPRING CLIP		4822 255 40179
1013	SPRING CLIP		4822 255 40397
⚠1015	MAINS CORD KIT		4822 212 31133
1017	COVER		4822 432 11134
1020	WALL FIXING		4822 404 31337
1021	ATTENUATOR	PAS 6100/001	4822 210 70148
1051	SPLITTER 2D	PAS 7001/051	4822 212 31209
1061	TERMINAL 11dB	PAS 7001/061	4822 218 21241
1071	TAP-OFF 15dB	PAS 7001/071	4822 218 21242
1081	TAP-OFF 20dB	PAS 7001/081	4822 218 21243
1091	CONTROL INJECTOR	PAS 7001/091	4822 218 21235
1101	CONTROL INDICATOR	PAS 7001/101	4822 218 21236
1502	POWER SUPPLY MODULE 2		4822 212 31132

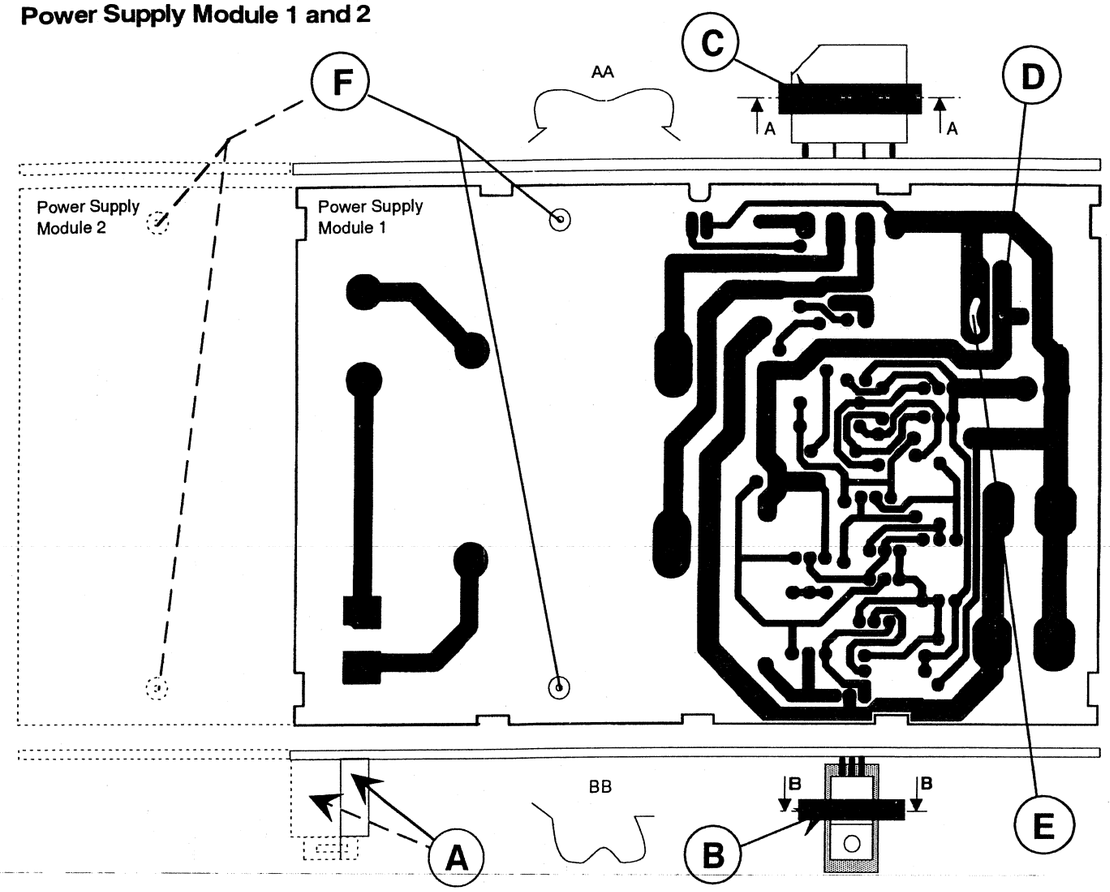
Exploded view

PAS 7001/021
PAS 7001/031



Note for Kits

Power Supply Module 1 and 2

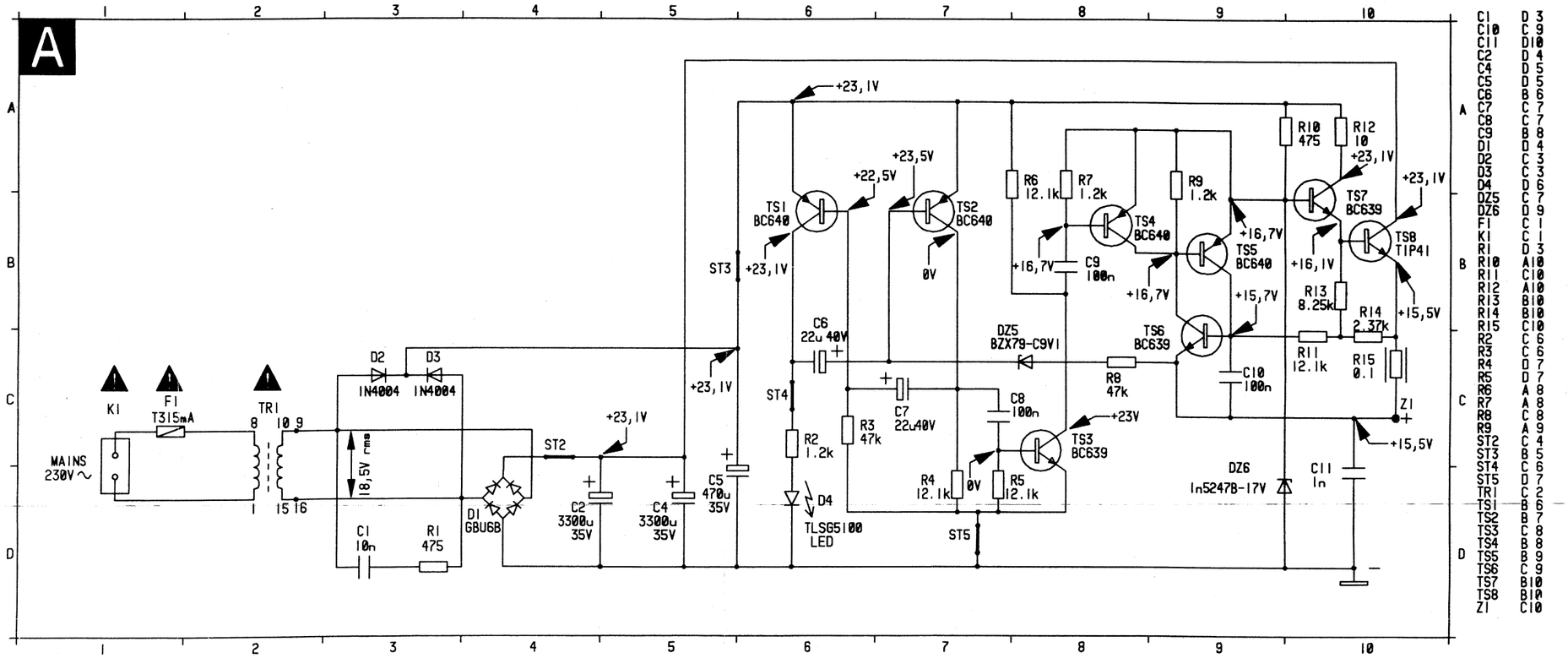


To remove the power supply unit proceed as follow :

- **A** Remove the mains connector
- **B** Remove the regulator spring clip (be careful to the positionning)
- **C** Remove the diode spring clip (be careful to the positionning)
- **D** Unsolder the marked point D
- **E** Unsolder the earthing terminal
- **F** Remove the 2 or 4 pcb fixing screws

Mounting : Repeat the process in reverse order

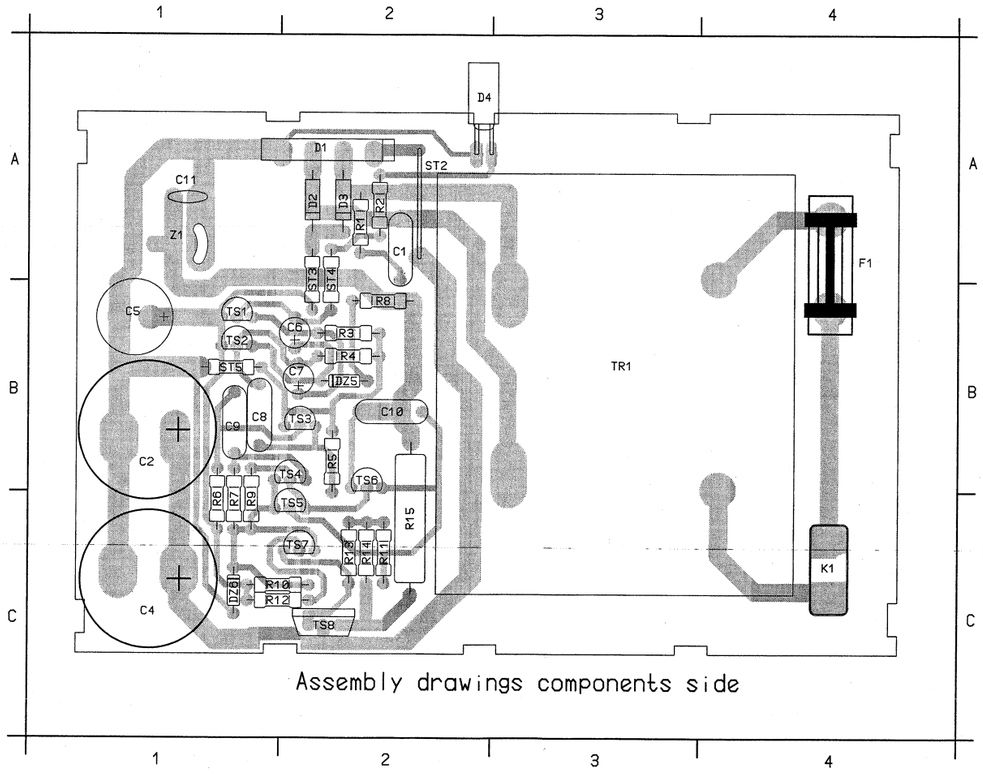
Power Supply Module I (PAS 7001/021)



NOTE : All measurments done with power supply loaded only with HF Amplifier (Inputs and outputs not loaded)

Print Layout

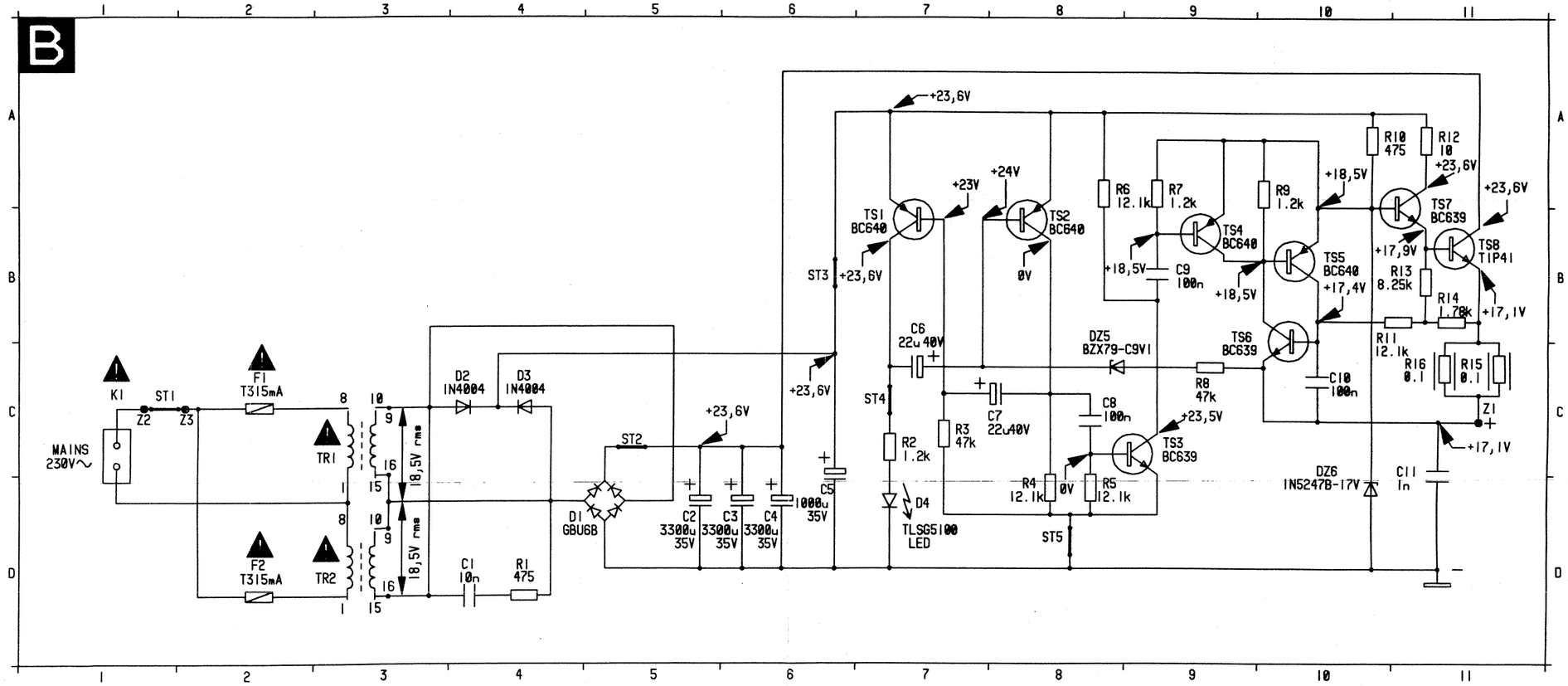
A Power Supply Panel



Assembly drawings components side

C1	A	2		R9	C	1
C10	B	2		ST2	A	2
C11	A	1		ST3	B	2
C2	B	1		ST4	B	2
C4	C	1		ST5	B	1
C5	B	1		TR1	A	3
C6	B	2		TS1	B	1
C7	B	2		TS2	B	1
C8	B	1		TS3	B	2
C9	B	1		TS4	B	2
D1	A	2		TS5	C	2
D2	A	2		TS6	B	2
D3	A	2		TS7	C	2
D4	A	2		TS8	C	2
DZ5	B	2		Z1	A	1
DZ6	C	1				
F1	B	4				
K1	C	4				
R1	A	2				
R10	C	1				
R11	C	2				
R12	C	1				
R13	C	2				
R14	C	2				
R15	C	2				
R2	A	2				
R3	B	2				
R4	B	2				
R5	C	2				
R6	C	1				
R7	C	1				
R8	B	2				

Power Supply Module 2 (PAS 7001/031)

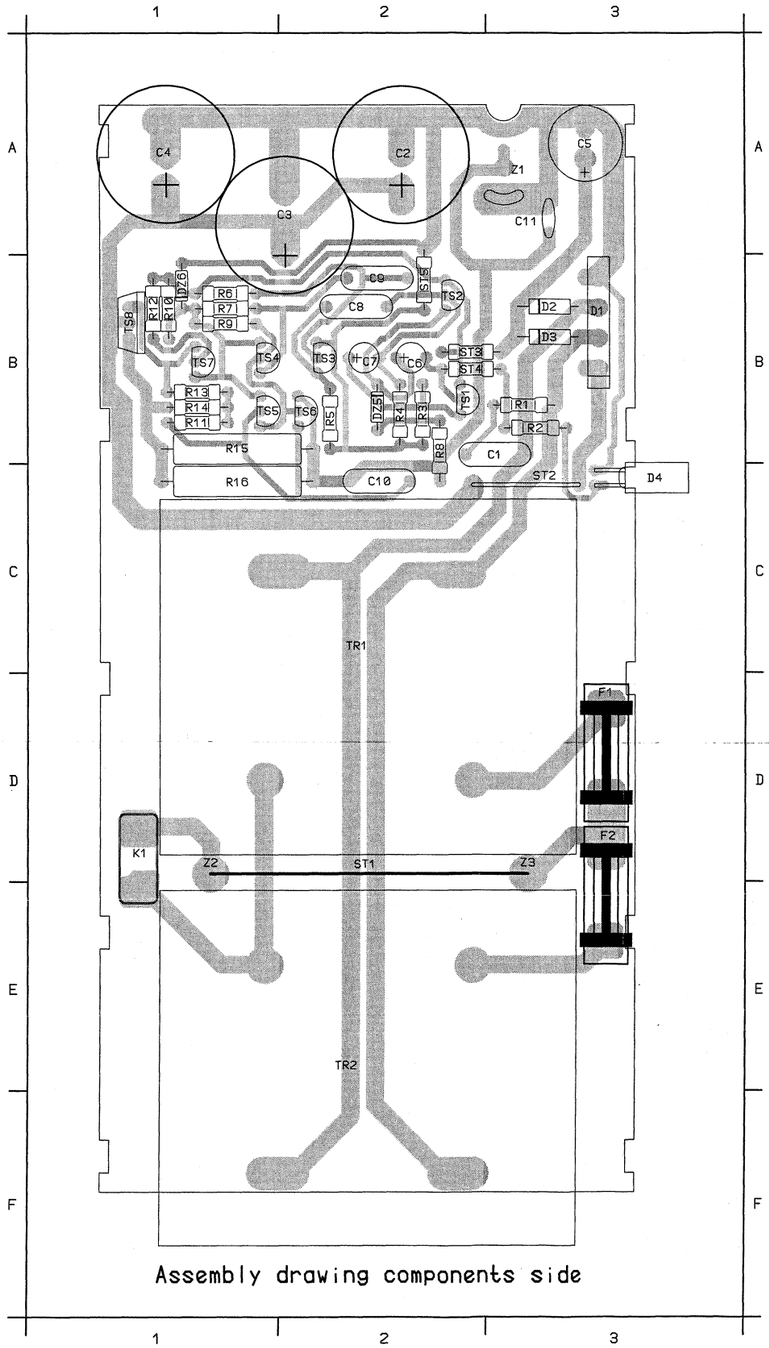


C1	D 4	Z1	C11
C10	C10	Z2	C 1
C11	C11	Z3	C 2
C2	D 5		
C3	D 6		
C4	D 6		
C5	D 6		
C6	B 7		
C7	C 7		
C8	B 8		
C9	B 9		
D1	D 4		
D2	C 4		
D3	C 4		
D4	D 4		
DZ5	B 7		
DZ6	B 8		
F1	C 1		
F2	C 2		
K1	C 2		
R1	D 4		
R10	A 8		
R11	B 8		
R12	A 7		
R13	B 8		
R14	B 7		
R15	C 7		
R16	C 7		
R2	C 7		
R3	C 8		
R4	D 8		
R5	D 8		
R6	A 8		
R7	A 9		
R8	C 9		
R9	A 8		
ST1	C 1		
ST2	C 5		
ST3	B 6		
ST4	C 7		
ST5	D 8		
TR1	C 3		
TR2	D 3		
TS1	B 7		
TS2	B 8		
TS3	C 9		
TS4	B 9		
TS5	B 8		
TS6	B 9		
TS7	A 7		
TS8	B 7		

NOTE : All measurments done with power supply loaded only with HF Amplifier (Inputs and outputs not loaded)

Print Layout

B Power Supply Panel



C1 B 3
C10 C 2
C11 A 3
C2 A 2
C3 B 2
C4 A 1
C5 A 3
C6 B 2
C7 B 2
C8 B 2
C9 B 2
D1 B 3
D2 B 3
D3 B 3
D4 C 3
DZ5 B 2
DZ6 B 1
F1 D 3
F2 E 3
K1 D 1
R1 B 3
R10 B 1
R11 B 1
R12 B 1
R13 B 1
R14 B 1
R15 B 1
R16 C 2
R2 B 3
R3 B 2
R4 B 2
R5 B 2
R6 B 1
R7 B 1
R8 C 2
R9 B 1
ST2 C 2
ST3 B 2
ST4 B 2
ST5 B 2
TR1 C 2
TR2 F 1
TS1 B 2
TS2 B 2
TS3 B 2
TS4 B 1
TS5 B 1
TS6 B 2
TS7 B 1
TS8 B 1
Z1 A 3
Z2 D 1
Z3 D 3

Assembly drawing components side

Power Supply Module 1

Various

K001 ⚠ 4822 265 40596 Mains connector

C001 4822 121 41677 10nF 10% 400V
C002 4822 124 42402 330µF 20% 35V
C004 4822 124 42402 330µF 20% 35V
C005 4822 124 41334 470µF 20% 35V
C006 4822 124 40804 22µF 20% 63V

C007 4822 124 40804 22µF 20% 63V
C008 4822 121 41689 100nF 10% 250V
C009 4822 121 41689 100nF 10% 250V
C010 4822 121 41689 100nF 10% 250V
C011 5322 122 32331 1nF 10% 100V

D001 4822 130 83542 GBU6B
D002 5322 130 34574 1N4004
D003 5322 130 34574 1N4004
D004 4822 130 82744 LED TLSG5100
DZ05 4822 130 30862 BZX79-C9V1

DZ06 4822 130 83543 1N5247B-17V

TR01⚠ 4822 146 31307 TRANSFORMER

R001 4822 050 24751 475Ω 1% 0,6W
R002 4822 050 21202 1k2 1% 0,6W
R003 4822 050 24703 47kΩ 1% 0,6W
R004 4822 050 21213 12k1 1% 0,6W
R005 4822 050 21213 12k1 1% 0,6W

R006 4822 050 21213 12k1 1% 0,6W
R007 4822 050 21202 1k2 1% 0,6W
R008 4822 050 24703 47kΩ 1% 0,6W
R009 4822 050 21202 1k2 1% 0,6W
R010 4822 050 24751 475Ω 1% 0,6W

R011 4822 050 21213 12k1 1% 0,6W
R012 4822 050 21009 10Ω 1% 0,6W
R013 4822 050 28252 8k2 1% 0,6W
R014 4822 050 22372 2k3 1% 0,6W
R015 5322 113 41021 E1 10% 3,5W

ST03 5322 290 80815 0Ω
ST04 5322 290 80815 0Ω
ST05 5322 290 80815 0Ω

TS01 4822 130 41078 BC640
TS02 4822 130 41078 BC640
TS03 4822 130 41053 BC639
TS04 4822 130 41078 BC640
TS05 4822 130 41078 BC640
TS06 4822 130 41053 BC639
TS07 4822 130 41053 BC639
TS08 4822 130 63501 TIP41

Power Supply Module 2

Various

F001 ⚠ 4822 256 30274 FUSE HOLDER
F002 ⚠ 4822 256 30274 FUSE HOLDER
K001 ⚠ 4822 265 40596 Mains connector

C001 4822 121 41677 10nF 10% 400V
C002 4822 124 42402 3300µF 20% 35V
C003 4822 124 42402 3300µF 20% 35V
C004 4822 124 42402 3300µF 20% 35V
C005 5322 124 22229 1000µF 20% 35V

C006 4822 124 40804 22µF 20% 63V
C007 4822 124 40804 22µF 20% 63V
C008 4822 121 41689 100nF 10% 250V
C009 4822 121 41689 100nF 10% 250V
C010 4822 121 41689 100nF 10% 250V

C011 5322 122 32331 1nF 10% 100V

D001 4822 130 83542 GBU6B
D002 5322 130 34574 1N4004
D003 5322 130 34574 1N4004
D004 4822 130 82744 LED TLSG5100
DZ05 4822 130 30862 BZX79-C9V1

DZ06 4822 130 83543 1N5247B-17V

TR01⚠ 4822 146 31307 TRANSFORMER
TR02⚠ 4822 146 31307 TRANSFORMER

R001 4822 050 24751 475Ω 1% 0,6W
R002 4822 050 21202 1k2 1% 0,6W
R003 4822 050 24703 47kΩ 1% 0,6W
R004 4822 050 21213 12k1 1% 0,6W
R005 4822 050 21213 12k1 1% 0,6W

R006 4822 050 21213 12k1 1% 0,6W
R007 4822 050 21202 1k2 1% 0,6W
R008 4822 050 24703 47kΩ 1% 0,6W
R009 4822 050 21202 1k2 1% 0,6W
R010 4822 050 24751 475Ω 1% 0,6W

R011 4822 050 21213 12k1 1% 0,6W
R012 4822 050 21009 10Ω 1% 0,6W
R013 4822 050 28252 8k2 1% 0,6W
R014 4822 050 21782 1k7 1% 0,6W
R015 5322 113 41021 E1 10% 3,5W

R016 5322 113 41021 E1 10% 3,5W
ST03 5322 290 80815 0Ω
ST04 5322 290 80815 0Ω
ST05 5322 290 80815 0Ω

TS01 4822 130 41078 BC640
TS02 4822 130 41078 BC640
TS03 4822 130 41053 BC639
TS04 4822 130 41078 BC640
TS05 4822 130 41078 BC640
TS06 4822 130 41053 BC639
TS07 4822 130 41053 BC639
TS08 4822 130 63501 TIP41

Col-Switch Spare parts list / Stuckliste / Liste des composants

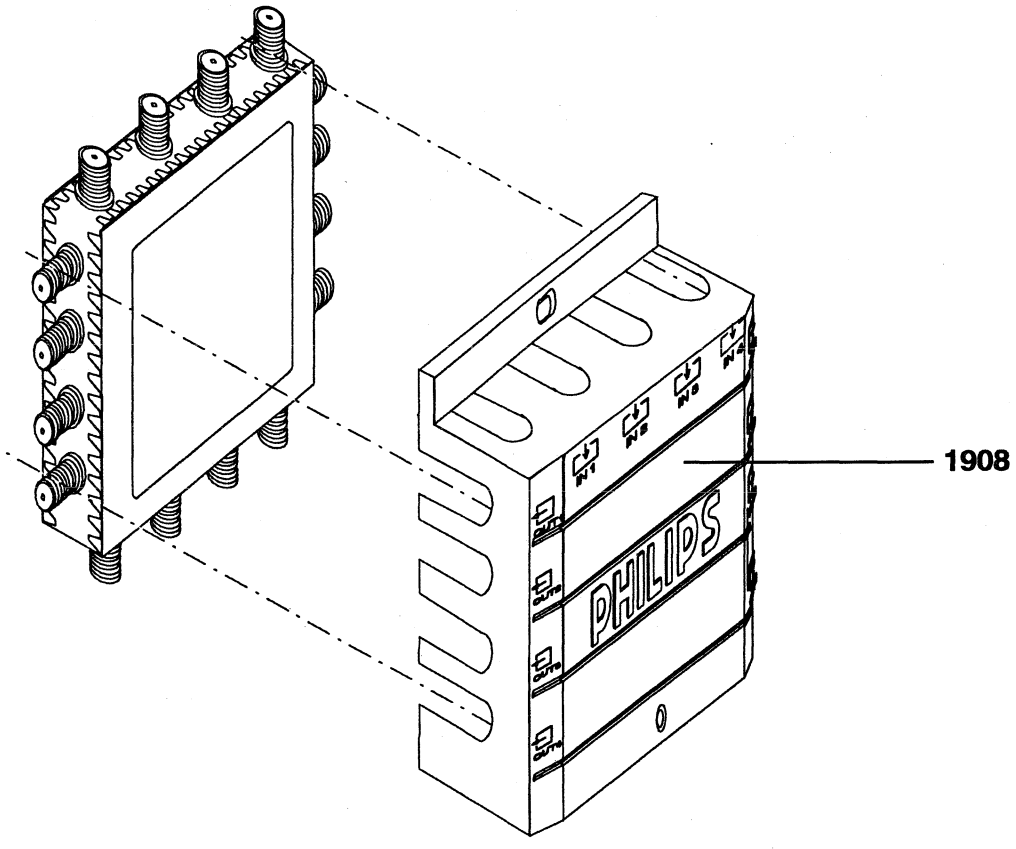
Mechanical Parts

PAS 7001/051

Item	Description	Service code
1908	COVER SPLITTER 2D	4822 432 11141

Exploded view

PAS 7001/051



Mechanical Parts

PAS 7001/061
PAS 7001/071
PAS 7001/081

Item	Description	Service code
1041	4X4 SWITCH (PAS 7001/041)	4822 218 21239
1607	BACK	4822 432 11136
1608	COVER 11dB	4822 432 11137
1708	COVER 15dB	4822 432 11138
1808	COVER 20dB	4822 432 11139

Exploded view

PAS 7001/061
PAS 7001/071
PAS 7001/081